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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,847	08/11/2000	Masahiro Konishi	0378-0373P	8513

7590 06/30/2005

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EXAMINER	
HERNANDEZ, NELSON D	
ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/635,847	KONISHI ET AL.	
	Examiner	Art Unit	
	Nelson D. Hernandez	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7,8 and 10* is/are allowed.

6)☒ Claim(s) *1-3,5,6,9,11 and 12* is/are rejected.

7)☒ Claim(s) *4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Examiner acknowledges the introduction of claims 11 and 12 in the response received on March 17, 2005.

Drawings

2. The drawings were received on March 17, 2005. These drawings are acceptable.

Response to Arguments

3. Applicant's arguments, see page 9, lines 12-20, filed on March 17, 2005, with respect to the rejection(s)of claim(s) 1, 2, 6 and 9 under 35 USC § 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claim 1, 2, 6 and 9** are rejected under 35 U.S.C. 102(e) as being anticipated by Okisu, US 2001/0033701 A1.

Regarding claim 1, Okisu discloses an image signal processor (Fig. 8: 19) for performing image processing on a first image signal representative of an image of a subject field captured by an imaging device (Figs. 8: 12 and 8:13) to produce a second image signal, comprising: a first memory (Fig. 9: 193) for storing therein the first image signal; a plurality of image processors (Fig. 9, items 194, 195 and 196) for each performing image processing, different from each other, on the stored first image signal to produce the second image signal different from each other; and a second memory (Fig. 9: 10) for storing therein the second image signals produced, wherein said plurality of image processors include types and parameters of the image processing such that at least one of the types and parameters of the image processing are different between said plurality of image processors (Page 3, ¶ 0070; page 4, ¶ 0078-0089; page 5, ¶ 0090-0092).

Regarding claim 2, this claim is written in a Markush type by using the expression "consisting of", meeting one species of a genus family anticipates the claimed subject matter. "A generic claim cannot be allowed to an applicant if the prior art discloses a species falling within the claimed genus." The species in that case will anticipate the genus. In re Slayter, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); In re Gosteli, 872 F.2d 1008, 10 USPQ2d 1614 (Fed. Cir. 1989). Okisu discloses that the types of image processing performed by said plurality of image processors include a change of brightness and (Fig. 7: 196) of the first image signal stored in said

first memory, the parameters of image processing being of the at least one selected from the group, said plurality of image processors performing the image processing of the at least one selected from the group on the first image signal stored in said first memory according to the parameters of image processing (Page 3, ¶ 0070; page 4, ¶ 0078-0089; page 5, ¶ 0090-0096).

Regarding claim 6, Okisu discloses that the second memory (Figs. 1: 10 and 8: 10) is detachably connected to the image signal processor (Page 3, ¶ 0068, 0083).

Regarding claim 9, Okisu discloses a method of processing a first image signal representative of an image of a subject field captured by an imaging device (Fig. 1) to produce a second image signal, comprising the steps of: storing the first image signal in a memory (Fig. 9: 193); performing a same type of image processing on the stored first image signal according to parameters of image processing different from each other to produce the second image signals (Page 4, ¶ 0087 – page 5, ¶ 0093); and storing the produced second image signals in a memory (Page 3, ¶ 0070; page 4, ¶ 0078-0089; page 5, ¶ 0090-0096).

6. **Claims 3, 11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Okisu, US 2001/0033701 A1 in view of Tanizoe, US Patent 6,753,917 B2.

Regarding claim 3, Okisu does not explicitly disclose that each of said plurality of image processors corresponds to one of a plurality of display units which are provided for visualizing the image represented by the second image signals stored in said second memory, each of said plurality of image processors processing, according

to the parameters, the second image signals to be displayed on one of the display units which corresponds to said image processor.

However, Tanizoe teaches a digital camera comprising a plurality of image processors (Figs. 1: 10 and 1: 12), wherein said image processors correspond to a plurality of display units (Figs. 1: 26 and 1: 28) coupled to the digital camera so when an external monitor is connected to the digital camera, a detector (Fig. 1: 14) send a detection signal in order to change from one of said image processors to another (Col. 3, lines 30-40; col. 4, lines 17-42).

Therefore, taking the combined teaching of Okisu in view of Tanizoe as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okisu by including image processors corresponding to a plurality of display units and a detector for detecting whether or not an external display is connected to the image signal processor so as to change form one image processor to a different one corresponding to the connected display unit. The motivation to do so would have been to permit the realization of a digital camera with interchangeable displays wherein large numbers of pixels are culled in processing the image signal, which is output for display on the display device which is built into the camera, while a smaller number are culled in processing the image signal which is output for display on an external monitor device as suggested by Tanizoe (Col. 1, lines 60-67).

Regarding claim 11, Okisu does not explicitly disclose that the plurality of image processors directly receives the stored first image signal as input.

However, Tanizoe teaches a digital camera (Fig. 11) comprising a plurality of image processors (Figs. 11: 90 and 11: 92) for directly receiving and processing the temporary image stored in a first memory (Fig. 11: 94), wherein said image processors correspond to a plurality of display units (Figs. 11: 26 and 11: 28) coupled to the digital camera so when an external monitor is connected to the digital camera, a detector (Fig. 1: 14) send a detection signal in order to change from one of said image processors to another (Col. 3, lines 30-40; col. 4, lines 17-42).

Therefore, taking the combined teaching of Okisu in view of Tanizoe as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okisu by having the plurality of image processors directly receives the stored first image signal as input. The motivation to do so would have been to permit the realization of a digital camera with interchangeable displays wherein large numbers of pixels are culled in processing the image signal, which is output for display on the display device which is built into the camera, while a smaller number are culled in processing the image signal which is output for display on an external monitor device as suggested by Tanizoe (Col. 1, lines 60-67).

Regarding claim 12, the combined teaching of Okisu in view of Tanizoe teaches the same as in claim 11. Therefore, grounds for rejecting claim 11 apply here.

7. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Okisu, US 2001/0033701 A1 in view of Konishi, US Patent 5,420,635.

Regarding claim 5, Okisu does not explicitly disclose a divider circuit for dividing the first image signal stored in said first memory into a highlight area and a shadow

area, each of said plurality of image processors performing the image processing in which at least one of the types and the parameters of the image processing differs between the highlight area and the shadow area.

However, Konishi teaches a video camera (Fig. 5) wherein a first image signal representing an image captured with large amount of exposure (Fig. 12a) is stored in a first frame memory (Figs. 5: 21 and 11: 21) and a second image signal representing an image captured with small exposure is stored in a second frame memory (Figs. 5: 22 and 11: 22) the image signal stored in the first frame memory is divided in two areas (SL for relatively dark areas and SH for relatively bright areas) by a mask pattern and edge pattern generation portion (Fig. 11: 63), the image signal corresponding to a relatively dark area is subject to image enhancement by applying level compression so as to smooth the change in luminance, next, based on the divided image, the images are combined so as to reproduce a composite image (Col. 24, line 36 – col. 25, line 56).

Therefore, taking the combined teaching of Okisu in view of Konishi as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okisu by having a mask pattern and edge pattern generation portion to divide the image signal stored in the memory in a dark area and a bright area and apply level compression to the dark areas so as to smooth the change in luminance of said dark areas. The motivation to do so would have been to enable the image processor to produce suitable image signal with respect to a subject in which the difference in luminance between a bright area and a dark area is large even if the strobe is not necessarily flashed as suggested by Konishi (Col. 1, lines 60-64).

Allowable Subject Matter

8. **Claims 7, 8 and 10** are allowed.

9. **Claim 4** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 7 and 10, the main reason for indication of allowable subject matter is because the prior art of records fails to teach or reasonably suggest having an image composer circuit for composing the second image signals stored in the second memory.

Okisu discloses an imaging device (Fig. 1) for capturing an image of a subject field and producing a first image signal representative of the subject field; a first memory (Fig. 9: 193) for storing therein the first image signal; a plurality of image processors (Fig. 7, items 194, 195 and 196) for each performing image processing, different from each other, on the stored first image signal to produce the second image signal different from each other; a second memory (Figs. 1: 10 and 8: 10) for storing therein the second image signals produced; and, said plurality of image processors including types and parameters of the image processing such that at least one of the types and parameters of the image processing are different between said plurality of image processors, the types of image processing including least one selected from a group consisting of a change of brightness (Fig. 9: 194) of the first image signal stored in said first memory

(Page 5, ¶ 0090-0096), the parameters of image processing being of the at least one selected from the group, whereby said plurality of image processors perform the image processing of the at least one selected from the group on the first image signal stored in said first memory according to the parameters of image processing (Page 3, ¶ 0070; page 4, ¶ 0078-0089; page 5, ¶ 0090-0096).

However Okisu fails to teach or reasonably suggest an image composer circuit for composing the second image signals to produce a third image signal.

Regarding claim 4, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest that the plurality of display units include a CRT (Cathode Ray Tube) display and a printer.

Conclusion

11. Because a new ground for rejection is being applied to substantively unamended claims, this Office Action will be Non-Final.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernandez whose telephone number is (571) 272-7311. The examiner can normally be reached on 8:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on (571) 272-7308. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nelson D. Hernandez
Examiner
Art Unit 2612

NDHH
June 17, 2005

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